WHAT IS CLAIMED IS:

1. A back-up detecting device with a distance reset capability for a large vehicle with a chassis and a rear end, the back-up detecting device comprising:

a controller (10) having multiple inputs, multiple outputs, an intensity analysis program and a distance reset capability;

multiple signal conversion circuits (11) connected to inputs of the controller (10);

multiple ultrasonic transceivers (14) are mounted on the chassis underneath a vehicle (20) near the rear end (21), transmit ultrasonic sound waves, receive reflected sound waves, respectively have an output and are connected respectively to signal conversion circuits (11) through which the controller (10) controls the emission of ultrasonic pulses;

a reset button (12) connected to an input of the controller (10) and initiates the distance reset function when the button (12) is depressed;

a memory device (13) connected to the controller (10) and storing a distance pad D_o; and

an alarm unit (15) connected to an output of the controller (10).

2. The back-up detecting device according to claim 1, wherein the alarm unit (15) has an alarm (151).

3. The back-up detecting device according to claim 1, wherein the alarm unit (15) has a monitor (152).

4. The back-up detecting device according to claim 1, wherein the alarm unit (15) has an alarm (151) and a monitor (152).

5. The back-up detecting device according to claim 1, wherein the distance reset function comprises the steps of:

placing a solid block (30) vertically in front of a detector (14) flush with the rear end (21) of the vehicle (20);

activating the range reset function by pressing the reset button (12);

emitting ultrasonic pulses from the ultrasonic transceiver (14);

receiving echoed ultrasonic pulses reflected from the solid block (30);

calculating the distance to the solid block (30); and

storing the distance to the solid block (30) in memory as the distance pad (D_o).

6. The back-up detecting device according to claim 1, wherein the intensity analysis program comprises the steps of:

emitting ultrasonic pulses from the ultrasonic transceiver (14);

receiving echoed ultrasonic pulses echoed back from an object;

calculating a distance D_x from the ultrasonic transceiver (14);

retrieving a distance pad (D_o) from memory (13); and

applying the distance pad D_o to the measured distance D_x to obtain an actual distance D from the vehicle body to the object by subtracting the distance pad D_o from the measured value D_x.